



How home buyers can find out if climate change will affect their dream home

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Home buyers can now find out whether climate change will hurt the value of the home they're interested in by predicting the costs of various climate-related scenarios.

Canny buyers can now use a range of online tools to assess the risks to individual properties over the next decades from rising seas, increasing bushfires and other hazards before buying.

The latest tool, Climate Valuation, due to be launched in September, provides projections of how inundation from rising seas and storm surges, bushfire and other risks will impact on the value of properties over a 30-year mortgage. It will provide reports on the projected risks to any of 14.6 million Australian homes within minutes.

According to a recent report by the Climate Council, the Australian property market is predicted to lose \$571 billion in value by 2030 due to climate change and extreme weather.

This loss will increase to \$661 billion by 2050. The modelling shows one in every 19 property owners face the prospect of insurance premiums that will effectively be unaffordable by 2030.

Dr Karl Mallon, director of science with Climate Risk, the company which developed the

Climate Valuation tool, says it was designed to allow the public to make informed decisions about risks of climate change to their most valuable asset, their home.

The free Beta version of [Climate Valuation](#), currently being tested online, calculates how predicted sea level rises are likely to impact on the value of a property over a 30-year mortgage term. The model uses four sea level rise scenarios from the Intergovernmental Panel on Climate Change (IPCC) and three low-to-extreme scenarios from the National Oceanic and Atmospheric Association (NOAA).

I tested the Beta version of Climate Valuation on a few homes in suburbs of Sydney, Byron Bay, Melbourne and the Central Coast predicted to be most at risk from rising sea water and storm surges. The results showed the relative values of certain properties as unchanged, but a few were predicted to have steep increases in average annual cost of damage and sharp drops in value.

A report on one townhouse in a Sydney harbourside suburb showed the average annual cost of damage at the end of a 30-year mortgage was between \$5254 and \$140,000, depending on the sea level rise scenario. Under the high or extreme NOAA sea level rise scenarios, the report showed the townhouse losing all value in 18 years.

Mallon says the commercial version of Climate Valuation system will also include risks from floods, bushfires, soil subsidence and wind storms. Home buyers will be able to buy a report on a property that predicts the impact of all these factors.

Home owners or sellers can buy an additional report on climate mitigation measures they can take to protect their home, such as raising the house on stilts or installation of simple flood gates.

Mallon agrees climate change will manifest over decades. But with some houses in low lying areas, he claims annual insurance costs could eventually exceed the mortgage costs. Mallon notes coastal inundation is not covered by current home insurance policies.





Several homes at Collaroy and Narrabeen in Sydney's north were badly affected by coastal erosion during a king tide in 2016, with home owners losing large swaths of their yards and even a swimming pool to the sea.. Photo: Fairfax Media

“Would you buy a house when there was a report available that said it was likely to become uninsurable and why?” he says in response to people who ask why climate change would affect the property market.

“I haven't met a single person who said 'I believe that climate change is such a hoax that I would go ahead and buy that house'.”

Professor Jean Palutikof, director of the National Climate Change Adaptation Research Facility at Griffith University, says whether buyers need to research climate risks before buying depends on how quickly they intend reselling.

“You don't need to worry about time scales up to a decade, but once you go beyond that you do need to take climate change into account.”

She said people buying for the short term should worry about present-day risks from flooding and bushfires. “But once they are buying for a lifetime, then they probably do need to think about climate change.”

Looking three or four decades into the future, buyers then need to take the changes that will occur in extreme events into account, she said.

Palutikof, lead author of two IPCC reports, said sea level rises were exponential and a rise of a few centimetres in the next decade would mean the level of storm surges might be of concern. People considering buying on a very soft coastline should probably take the risk of coastal erosion into account, she said.

There are lots of measures people could take to mitigate the risks, according to Palutikof. For example after 2050, the risk of extreme fire weather days “starts to accelerate away”, but this does not necessarily transition into real events.

People could take steps, including clearing the area around their house and changing their behaviour to lessen the risk of setting off fires. Coastal erosion was harder to manage and in some areas it might be necessary to retreat.

Insurance Council of Australia spokesperson Campbell Fuller says the only tool the council advocates home buyers use is its MyHazards app. Based on government data, it gives information on current known risks of exposure to floods, cyclones, bushfires and other natural hazards for more than 11 million properties in Australia.

“However this is not climate change and climate change modelling does not offer a definitive view of what might happen decades into the future,” said Fuller. “Insurers do not factor climate change into policies, they factor in only the known risks to properties”.

He said most properties already exposed to extreme weather might see a worsening of this experience in coming generations.

The ICA encourages any prospective property buyer to speak to the local council about potential climate risks to their target area. Fuller says buyers should have discussions with councils and state and federal government about the measure they are taking to mitigate against the risks and protect properties and communities.

“No property in Australia is uninsurable due to climate change,” Fuller said. “Insurers will continue to underwrite the risk at an individual property level. Where the risk is high, it will be reflected in the individual premium.”

Tools for property owners to predict climate change impacts

Sea level rises and temperature increases

- **Coastal Risk Australia** shows current and predicted coastal inundation from sea level rise and storm surges for cities and towns by the end of the century using interactive maps.
- **Coast Adapt** models risks and impacts of climate change for coastal councils. It includes predicted maximum days over 30 degrees.
- **Climate analogues** shows what temperatures will be like in towns and cities by 2030, 2050 and 2090 under different climate scenarios.

Bush fire risks

Each state has different mapping tools to check if a property is currently in bushfire-prone land. Fire frequency is predicted to increase with climate change.

- **NSW** – NSW Rural Fire Service has a **bushfire-prone land mapping tool**
- **Victoria** – **VicPlan** can generate a property report, including bushfire hazards, for any property.
- **Queensland** – **State Planning Policy mapping system** has a bushfire hazard layer in the Safety and Resilience to Hazards section.
- **South Australia** – **Property and Planning Atlas** shows bushfire protection areas in the Layers tab under Development.

We recommend



ADVICE

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